AMENDMENTS TO THE CLAIMS

1.   (CURRENTLY AMENDED) A method for representing a motion for two blocks, comprising the steps of:

(A)   exchanging a group ~~particular value of a plurality of values~~ with a memory, <u>said group comprising a parameter and up to two of a plurality of motion vectors, said parameter having (i) a first value which indicates that both of said blocks use an intra prediction (ii) a second value which indicates that both of said blocks use a list 0 prediction, (iii) a third value which indicates that both of said blocks use a list 1 prediction and (iv) a fourth value which indicates that both of said blocks use a bidirectional prediction in which a first of said blocks uses both of said two motion vectors and a second of said blocks uses both of said two motion vector</u> ~~each of said values defining which of said two blocks use which of a plurality of motion vectors based upon one of a plurality of prediction types, wherein (1) said prediction types include (i) a first prediction type of said two block using a first reference picture list, (ii) a second prediction type of said two blocks using a second reference picture list, (iii) a third prediction type of said two blocks using a bidirectional prediction and (iv) a fourth prediction type of said two blocks using an intra prediction~~ and (2) said exchanging includes at least one of reading from said memory and writing to said memory; and

2

(B)   representing said motion for said two blocks with a said group comprising said particular value and up to all of said

25   motion vectors, wherein said two blocks comprise two 4x4 blocks within a single 8x8 quadrant of a macroblock coded using use a macroblock adaptive field/frame coding.

2.   (CURRENTLY AMENDED) The method according to claim 1, wherein (i) said first block has a first of said motion vectors and a second of said motion vectors and (ii) said group has at most one of said first motion vector and said second motion vector a

5   plurality of bits that is less than a maximum number of bits capable of representing each unique possibility for said motion vectors.

3.   (CURRENTLY AMENDED) The method according to claim 1, wherein a first plurality of said motion vectors corresponding to said first block a first of said two blocks matches a second plurality of said motion vectors corresponding to said second block

5   a second of said two blocks.

4.   (PREVIOUSLY PRESENTED) The method according to claim 3, further comprising the step of:

excluding said second plurality of said motion vectors from said group.

3

5.　　(CURRENTLY AMENDED) The method according to claim 1, wherein _(i)_ said group includes at most two of said motion vectors and _(ii) said parameter comprises at most two bits_.

6.　　(CURRENTLY AMENDED) The method according to claim 5, wherein said _parameter_ ~~particular value~~ defines how many of said motion vectors are used by _said first block_ ~~at least one of said two blocks~~.

7.　　(CANCELED).

8.　　(CURRENTLY AMENDED) The method according to claim 1, further comprising the step of:

using ~~a~~ _said_ list 0 prediction ~~of said prediction types~~ with said motion vectors, wherein _a first of said motion vectors is different than a second of said motion vectors_ ~~(i) said motion vectors comprise two motion vectors and (ii) each of said two motion vectors is used for a different one of said two blocks~~.

9.　　(CURRENTLY AMENDED) The method according to claim 1, further comprising the step of:

using ~~a~~ _said_ list 1 prediction ~~of said prediction types~~ with said motion vectors, wherein _a first of said motion vectors is different than a second of said motion vectors_ ~~(i) said motion~~

~~vectors comprise two motion vectors and (ii) each of said two~~

~~motion vectors is used for a different one of said two blocks.~~

10.   (CANCELED).

11.   (CURRENTLY AMENDED) The method according to claim 1, ~~wherein step (B) comprises the sub-steps~~ further comprising the steps of:

generating said group with said parameter ~~particular value~~ while above a predetermined H.264 standard level for a bitstream conveying said macroblock ~~two macroblocks~~; and

generating said group ~~groups~~ without said parameter ~~particular value~~ while below said predetermined H.264 standard level for said bitstream.

12.   (CURRENTLY AMENDED) The method according to claim 1, further comprising the steps of:

interpreting said motion vectors in said group based upon said parameter ~~particular value~~ while above a predetermined H.264 standard level for a bitstream conveying said macroblock ~~two macroblocks~~; and

using said motion vectors in said group independently of said parameter ~~particular value~~ while below said predetermined H.264 standard level for said bitstream.

13. (CURRENTLY AMENDED) An apparatus comprising:

a memory; and

a circuit configured to ~~(i)~~ exchange a <u>group</u> ~~particular value of a plurality of values~~ with said memory, <u>said group comprising a parameter and up to two of a plurality of motion vectors representing a motion of two blocks, said parameter having (i) a first value which indicates that both of said blocks use an intra prediction (ii) a second value which indicates that both of said blocks use a list 0 prediction, (iii) a third value which indicates that both of said blocks use a list 1 prediction and (iv) a fourth value which indicates that both of said blocks use a bidirectional prediction in which a first of said blocks uses both of said two motion vectors and a second of said blocks uses both of said two motion vector</u> ~~each of said values defining which of two blocks use which of a plurality of motion vectors based upon one of a plurality of prediction types and (ii) represent a motion for said two blocks with a group comprising said particular value and up to all of said motion vectors, wherein (1) said prediction types include (a) a first prediction type of said two block using a first reference picture list, (b) a second prediction type of said two block using a second reference picture list, (iii) a third prediction type of said two block using a bidirectional prediction and (iv) a fourth prediction type of said two blocks using an intra~~

6

prediction, (2) wherein (a) said exchange includes at least one of
a read from said memory and a write to said memory, and (b) (3)
said two blocks comprise two 4x4 blocks within a single 8x8
quadrant of a macroblock coded using use a macroblock adaptive
field/frame coding.

14. (CURRENTLY AMENDED) The apparatus according to claim
13, wherein (i) a first of said blocks has a first of said motion
vectors and a second of said motion vectors and (ii) said group has
at most one of (a) said first motion vector and (b) said second
motion vector a plurality of bits that is less than a maximum
number of bits representing every unique possibility for said
motion vectors.

15. (CURRENTLY AMENDED) The apparatus according to claim
13, wherein (i) said group includes at most two of said motion
vectors and (ii) said parameter comprises at most two bits.

16. (CURRENTLY AMENDED) The apparatus according to claim
15, wherein said parameter particular value defines how many of
said motion vectors are used by said first block at least one of
said two blocks.

7

17. (CURRENTLY AMENDED) The apparatus according to claim 13, further comprising:

a ~~coding~~ circuit configured to ~~encode~~ <u>insert</u> said <u>parameter</u> ~~particular value~~ within a bitstream.

18. (CURRENTLY AMENDED) The apparatus according to claim 13, further comprising:

a ~~decoder~~ circuit configured to ~~decode~~ <u>parse</u> said <u>parameter</u> ~~particular value~~ from a bitstream.

19. (CANCELED).

20. (CURRENTLY AMENDED) An apparatus comprising:

means for storing a group; and

means for ~~(i)~~ exchanging <u>said group</u> ~~a particular value of a plurality of values~~ with said means for storing, <u>said group comprising a parameter and up to two of a plurality of motion vectors representing a motion of two blocks, said parameter having (i) a first value which indicates that both of said blocks use an intra prediction (ii) a second value which indicates that both of said blocks use a list 0 prediction, (iii) a third value which indicates that both of said blocks use a list 1 prediction and (iv) a fourth value which indicates that both of said blocks use a bidirectional prediction in which a first of said blocks uses both</u>

of said two motion vectors and a second of said blocks uses both of

said two motion vector, ~~each of said values defining which of two~~

15. ~~blocks use which of a plurality of motion vectors based upon one of~~

~~a plurality of prediction types and (ii) representing a motion for~~

~~said two blocks with a group comprising said particular value and~~

~~up to all of said motion vectors, wherein (1) said prediction types~~

~~include (a) a first prediction type of said two blocks using a~~

20. ~~first reference picture list, (b) a second prediction type of said~~

~~two blocks using a second reference picture list, (c) a third~~

~~prediction type of said two blocks using a bidirectional prediction~~

~~and (d) a fourth prediction type of said two blocks using an intra~~

~~prediction, (2)~~ wherein (a) said exchanging includes at least one

25. of reading from said means for storing and writing to said means

for storing and (b) ~~(3)~~ said two blocks comprise two 4x4 blocks

within a single 8x8 quadrant of a macroblock coded using ~~use~~ a

macroblock adaptive field/frame coding.

　　　21.　(CURRENTLY AMENDED) A method for representing a

motion for two blocks, comprising the steps of:

　　　(A)　generating a representation for said motion for said

two blocks, said representation having less than ~~a maximum number~~

5　~~of bits capable of representing each possible combination of~~ four

motion vectors for said two blocks when in a bidirectional

prediction mode, wherein a first two of said four motion vectors

9

reference a first reference frame and a second two of said four

motion vectors reference a second reference frame; and

10   (B)   exchanging   said   representation   with   a   memory,

wherein (i) said exchanging includes at least one of reading from

said memory and writing to said memory and (ii) said two blocks

comprise two 4x4 blocks within a single 8x8 quadrant of a

macroblock coded using ~~use~~ a macroblock adaptive field/frame

15   coding.

22.   (CURRENTLY AMENDED) The method according to claim

21, wherein said representation comprises (i) a particular value of

a plurality of values and (ii) up to ~~all~~ two of said four motion

vectors

23.   (CURRENTLY AMENDED) The method according to claim

21, wherein ~~said representation is configured to accommodate~~ (i) ~~a~~

~~first number of possible vectors that could be expressed by~~ a first

of said motion vectors corresponding to a first block of said two

5   blocks has one of a first number of possible vectors, (ii) ~~a second~~

~~number of possible vectors that could be expressed by~~ a second of

said motion vectors corresponding to said first block has one of a

second number of possible vectors, (iii) ~~a third number of possible~~

~~vectors that could be expressed by~~ a third of said motion vectors

10   corresponding to a second block of said two blocks has one of a

10

third number of possible vectors and (iv) ~~a fourth number of possible vectors that could be expressed by~~ a fourth of said motion vectors corresponding to said second block has one of a fourth number of possible vectors.

24. (CURRENTLY AMENDED) The method according to claim 23, wherein said ~~presentation is less than~~ representation utilizes less than a maximum number of bits, said maximum number of bits matching a base 2 logarithm of a product of said first number, said

5   second number, said third number and said fourth number rounded up to a nearest integer.

25. (CURRENTLY AMENDED) The method according to claim 21, wherein said representation comprises at most ~~is capable of representing up to~~ two of said four motion vectors ~~corresponding to each of said two blocks~~, each of said two motion vectors

5   ~~corresponding to each of said two blocks~~ can take on at least 67,108,864 unique values, and said representation uses fewer than 104 bits.

26. (NEW) The method according to claim 21, wherein said representation comprises a parameter, said parameter having (i) a first value which indicates that both of said blocks use an intra prediction (ii) a second value which indicates that both of said

11

5 blocks use a list 0 prediction, (iii) a third value which indicates

that both of said blocks use a list 1 prediction and (iv) a fourth

value which indicates that both of said blocks use a bidirectional

prediction in which a first of said blocks uses a particular two of

said four motion vectors and a second of said blocks uses said

10 particular two of said four motion vectors.

27. (NEW) The method according to claim 26, wherein (i)

said representation includes at most two of said four motion

vectors and (iii) said parameter comprises at most two bits.

28. (NEW) The method according to claim 21, wherein (i)

a first of said blocks has a first of said four motion vectors and

a second of said four motion vectors and (ii) said representation

has at most one of (a) said first motion vector and (a) said second

5 motion vector.